

ABHANDLUNGEN UND BERICHTE
AUS DEM STAATLICHEN MUSEUM FÜR TIERKUNDE DRESDEN

Verantwortlicher Redakteur: Dr. rer. nat. RAINER EMMRICH

Redaktioneller Beirat: Dr. rer. silv. ALFRED FEILER Dr. rer. nat. RÜDIGER KRAUSE
Dr. rer. nat. ROLF HERTEL Dipl.-Biol. FRITZ JÜRGEN OBST

Autorenhinweise — Notices to contributors

Die Schriftenreihen des Staatlichen Museums für Tierkunde Dresden dienen der Veröffentlichung von zoologischen Originalarbeiten aus dem Museum, darüber hinaus von solchen Arbeiten, denen ganz oder teilweise Sammlungsmaterialien des Museums zugrunde liegen, oder die über Tiermaterialien berichten, von denen Belegstücke in die Sammlungen des Museums eingereicht werden. Nach Erfüllung dieser Maßgabe stehen die Schriftenreihen auch anderen Autoren offen.

Die Beiträge sollen thematisch die zoologischen Fachgebiete Taxonomie beziehungsweise Systematik, Phylogenie, Evolutionstheorie, Morphologie, Anatomie, Bionomie, Ökologie, Faunistik, oder Zoogeographie zum Inhalt haben. Biographisch, wissenschaftshistorisch, wissenschaftsmethodisch oder musealwissenschaftlich orientierte Beiträge können ebenfalls Aufnahme finden. Hinsichtlich der geographischen Herkunft des bearbeiteten Tiermaterials besteht keine regionale oder zoogeographische Begrenzung.

The serials edited by Staatliches Museum fuer Tierkunde, Dresden, are destined for publication of zoological original research contributions by collaborators of the Museum, in addition, of those contributions which are entirely or partially based on treatments of materials in the collections of the Museum or which inform on animal species whose examples are integrated into the collections of the Museum. After these demands have been met, other authors, too, can make use of the serials for publication.

The papers shall inform on subjects from the zoological branches of taxonomy respectively systematics, phylogenetics, evolution theory, morphology, anatomy, bionomics, ecology, faunistics or zoogeography. Papers dealing with biographies, history of natural science, methodology or museology can also be considered. The species subjected to investigation are not restricted regionally or zoogeographically.

Für Inhalt, sprachliche Gestaltung sowie Beachtung einer eventuellen Veröffentlichungsgenehmigung Ihrer Beiträge sind die Autoren selbst verantwortlich. Eine Bearbeitung der zur Veröffentlichung vorgesehenen Manuskripte (unter Zugrundelegung der verwendeten drucktechnischen Standards) behält sich die Redaktion vor. Es werden unentgeltlich 100 Sonderdrucke sowie ein Belegexemplar des betreffenden Bandes der jeweiligen Publikationsreihe an die Autoren ausgegeben. Von den in den „Faunistischen Abhandlungen“ erscheinenden „Faunistischen Kurzmeldungen“ erhalten die Autoren mindestens 10 Belege. Honorare, auch für Illustrationen, werden nicht gezahlt.

Die Manuskripte können in deutscher, englischer oder französischer Sprache verfaßt sein. Jeder Beitrag (mit Ausnahme der für die „Reichenbachia“ vorgesehenen) muß eine kurze und informative Zusammenfassung in der verwendeten Sprache enthalten. Diese Zusammenfassung wird (einschließlich des Titels) bei deutschsprachigen Manuskripten in das Englische, bei fremdsprachigen Manuskripten in das Deutsche übertragen. Die Vornahme dieser Übersetzung durch die Autoren selbst ist erwünscht. — Spezielle Richtlinien über Manuskriptgestaltung, Ausführung der Illustrationen sowie Korrekturgang können auf Anforderung vom Herausgeber bezogen werden.

Rezensionen von Schrifttum der obigen Fachdisziplinen finden Aufnahme.

Alle Rechte über die in den Schriftenreihen des Staatlichen Museums für Tierkunde Dresden veröffentlichten Beiträge verbleiben bei der herausgebenden Institution. Nachdrucke, auch in gekürzter oder übersetzter Form, bedürfen der Genehmigung.

Die Schriftenreihen des Staatlichen Museums für Tierkunde Dresden werden vorzugsweise im Tausch gegen Zeitschriften, Schriftenreihen sowie Einzelwerke abgegeben.

Manuskripte, Rezensionsexemplare sowie alle Anfragen redaktioneller Art oder über den Bezug der Schriftenreihen durch Tausch oder Kauf werden an die folgende Anschrift erbeten:
Staatliches Museum für Tierkunde Dresden
DDR - 8010 Dresden, Augustusstraße 2

Die Auslieferung der Schriftenreihen an alle Bezieher durch Kauf erfolgt für das gesamte Ausland über: Zentralantiquariat der Deutschen Demokratischen Republik
DDR - 7010 Leipzig, Talstraße 29

Notes on the Spider Family Mimetidae with Description of
a New Genus from Australia

(Arachnida, Araneae)

With 50 Figures

STEFAN HEIMER
Dresden

Introduction

To this day it has proved difficult to establish a satisfactory classification of the family Mimetidae and its genera. In a former paper (HEIMER, 1983) the author attempted to provide an exact definition of the Mimetidae. Subsequent observations on Australian species of this family have produced some interesting results. Hitherto only one species had been found on the Australian mainland, *Mimetes maculosus*, described by RAINBOW (1904). The author was able to study the representative typus of this species as well as a number of other mimetid spiders of Australia. All the Australian species were observed to be closely related and to show distinct common characteristics in the male copulatory organs: they are therefore considered to constitute a new genus in this paper.

Included among the very interesting material from Australia there is a large number of specimens of *Ero tasmaniensis* HICKMAN, which is discussed here because of its exceptional position within the genus *Ero* as well as within the Mimetidae. The author was also able to study the type-species and several others of the mimetid genera *Ero*, *Gelanor* and *Mimetes*. It was possible to identify characteristics which enable the genera to be clearly distinguished from each other. The present paper provides keys for determining these genera and the species of the new genus. These keys are of practical use and do not claim to be a reflection of phylogenetical relationships between the groups.

Acknowledgements

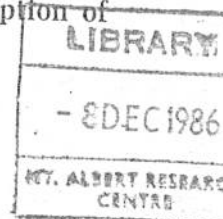
This paper was made possible by the help of numerous arachnologists. The author wishes to express his thank to: Dr. Valerie E. DAVIS, Brisbane; Mr. M. R. GRAY, Sydney; Prof. Dr. V. V. HICKMAN †, New Town, Hobart; Prof. Dr. H. W. LEVI, Cambridge, Massachusetts; Dr. M. MORITZ, Berlin; Dr. W. NENTWIG, Marburg; Dr. R. J. RAVEN, Brisbane.

Abbreviations

AMS = Australian Museum Sydney	Ma = Medianapophysis
Cb = Cymbium	Pc = Paracymbium
E = Embolus	QMB = Queensland Museum Brisbane
	T = Tegulum

Mimetidae

Within the Araneoidea the family Mimetidae seems to be closely related on the one hand to the Araneidae through the genus *Arcys* (HEIMER, 1983); on the other hand through the other genera to the Cyatholipidae (Teemenaaridae) and the Metidae (BRIGNOLI, 1983). Mimetid spiders can be distinguished from the other families by the following characteristics. All mimetids have on their forelegs a single row of spines in a typical arrangement: a series of very long curved spines alternates with rows of shorter ones whose length within each row increases distally towards the next long spine (fig. 20). The cheli-



cerae of the Mimetidae have developed in several different ways within the various genera, but all have in common a distinct row of spine-like bristles on the front margin of the claw furrow.

The male palpal organ of all Mimetidae shows a well developed dorsal paracymbium (HEIMER, 1981, 1983) and in some cases (*Arcys*, *Ero*) a so-called lateral lobus (HEIMER, 1983). The bulbus lacks radix and stipes at the base of the embolus and also a distal hematodocha with terminal apophyses (according to LEVI, 1971 and GRASSHOFF, 1970). In most of the species the medianapophysis is a large and very complex sclerite (HEIMER, 1983).

The female copulatory organs show a simple vulva with short copulatory ducts and two sclerotized receptacula semines. Where four receptacula are present they are arranged in pairs. Sometimes a scape-like appendage is present at the epigynum. The plates and appendages of the epigynum are of various forms, which can be used to distinguish one species from another.

Distribution: The spiders of the family Mimetidae have a world-wide distribution. One of the genera examined by the author, *Ero*, is distributed throughout Eurasia and North America and is also represented by *E. tasmaniensis* in eastern Australia and Tasmania. Regarding distribution records from the Neotropics and Africa, the author recommends that these be revised as there appears to be some confusion with other genera. This is also true of *Mimetus*, which is, however, definitely distributed from the Nearctic region to middle America as well as in Eurasia. *Gelanor* is a neotropical genus; there are no records from other parts of the world. The genus *Arcys* is distributed from the Indonesian Archipelago to the western and eastern parts of Australia and also in Tasmania (BALOGH, 1979; HEIMER, 1983). The genus *Australomimetus* n. gen. is only known in eastern Australia.

Natural history: There is no mimetid species known which builds a web for the purpose of catching prey. Within the genera several methods of catching prey have been developed. CUTLER (1972) noted that *Mimetus puritanus* feeds on spiders of several groups. It waits near the periphery of its web for the spiders to approach and then bites it rapidly in the leg. Wrapping in silk is never used as a means of overcoming prey, but in most cases the prey is subsequently wrapped up.

The author raised *Ero aphana* and *E. furcata* for several generations and noted the same method of catching prey as used by *Mimetus puritanus*, but these species were never observed to wrap up their prey. *Ero* has been to attack Theridiidae and Linyphiidae more than twice its own size. An exception to this rule seems to be *Ero tasmaniensis*, which is mostly found in pitfall traps. Also the habits of this spider indicate that it must live on the ground and not on webs or threads.

The prey catching behavior of *Gelanor* is largely unknown. NENTWIG (in litt.) noted that a Panamanian species sits in a thomisid like position in the webs of *Nephila clavipes* and *Mecynogea* spec. (both Araneidae). On examining a collection of *Gelanor* from Paraguay in the Zoologisches Museum Berlin the author found some wrapped *Peucetia* (Oxyopidae) in the vials together with several *Gelanor* species.

According to some information from DAVIES (in litt.) and RAVEN (in litt.) *Australomimetus* n. gen. can be found at night near the webs of pisaurid and araneid spiders. During the day it sits on the undersides of leaves. The author has observed the wrapped legs of Araneidae and Pisauridae (?) among remains left by *Australomimetus* n. gen.

Arcys sits on leaves in a thomisid like position and catch insects and spiders as prey (ROBINSON, 1980; HEIMER, 1983).

The egg-sacs of mimetid spiders so far observed are globular, with many loops of silk on the surface. They contain only about 5 to 20 eggs. It seems that most of the Mimetidae deposit their egg-sacs under leaves and litter, but some European *Ero* hang theirs on plants using a single thin thread.

No observations of hatching are known. During a study of two *Ero* species the author never observed a case of cannibalism: if two spiders of *Ero* species meet they touch each other with their front legs and then part without any apparent enmity.

The genera examined by the author

After a first observation of the Australian species the author thought that some were *Mimetus*, the others *Phobetinus* species. However, all of them differ from *Mimetus* and *Phobetinus* (BRIGNOLI, 1972) in the shape of the male palpal organ and in some cases in the abdominal form.

Attempts to identify some of the species as *Ero* also proved to be in vain, and simply raised the question as to what constitutes the difference between *Ero* and *Mimetus*. It seems that this question is as old as the observations on Mimetidae themselves. The characteristics which serve to distinguish an *Ero* from a *Mimetus* are only represented unmistakably in a few species (HENTZ, 1832; KOCH, 1837; KASTON, 1981 and others). During examination of *Australomimetus* n. gen. the author found a distinct row of very short and strong spines on the first and second femora of all species (fig. 19). These spines were also found in *Phobetinus* (BRIGNOLI, 1972), and all *Mimetus* examined by the author exhibit this characteristic as well. Nothing is known about the function and development of the spines but they seem to provide a reliable means of distinguishing mimetid genera from each other.

The following key for the identification of the mimetid genera *Australomimetus* n. gen., *Ero*, *Gelanor*, *Mimetus* and *Arcys* is based on the above observations and on some differences in the male palpal organ. The key is for practical use only and does not lay claim to reflect phylogenetical relationships between the genera.

- 1 Abdomen with numerous sigillae (chitinous plates of circular or elliptical form, which are not connected with abdominal muscles), mostly modified. Chelicerae short and strong with small denticles between the typical spines. Adult males with a distinctive sensory organ on tarsus I (HEIMER et al., 1982; HEIMER, 1983). **Arcys** WALCK. 2
- Spider without the above characteristics. 2
- 2 Femur I with a retrolateral row of very short spines in the proximal half (fig. 19). 3
- Femur I without a distinct row of spines. If spines are present they are long and not in a distinct row. 4
- 3 Cymbium of male palpus with a shovel-like appendage on its dorsal edge below the paracymbium. This appendage is usually as large as the cymbium itself (fig. 1). **Mimetus** HENTZ
- Cymbium of the male palpus lacks the large appendage described above. Dorsal edge of the cymbium has a small ledge only (fig. 7). **Australomimetus** n. gen.
- 4 Triangular abdomen tapering towards the posterior. Legs and leg-shaped parts of male palpus extremely long. Cymbium has a large dorsal appendage (c. f. *Mimetus*). The simple paracymbium is usually largely integrated with this appendage (fig. 2). **Gelanor** THORELL
- Abdomen nearly globular, sometimes with little tubercles. Legs and palpi of „normal“ length. Cymbium has only a small ledge on its dorsal edge. Paracymbium complex, sometimes with an indistinct lateral lobus (HEIMER, 1983) (c. f. *Arcys* species) (fig. 4). **Ero** C. L. KOCH

Australomimetus n. gen.

Type-species by monotypy: *Mimetus maculosus* RAINBOW, 1904.

A genus of the Mimetidae possessing the characteristics of the family as described above. According to the shape of the abdomen and cephalothorax this genus seems to be closely related to *Mimetus* and *Phobetinus*. It differs from *Phobetinus* in the shape of the para-

cymbium and other parts of the male palpal organ. *Australomimetes* can be distinguished from *Mimetus* through the dorsal edge of the cymbium; in *Mimetus* it is developed at this point to the large shovel-like appendage, but in all known species of *Australomimetes* the dorsal edge of the cymbium has no appendages (except the paracymbium). *Australomimetes* has been found in eastern Australia from northern Queensland to New South Wales and also on Lord Howe Island. With some exceptions *Australomimetes* can be divided into two species groups.

The *maculosus* group consists mainly of large spiders which resemble *Mimetus*. In these species the cephalothorax is greatly extended and piriform, with a distinct pattern at its dorsum. The chelicerae are long and usually display small tubercles in front (fig. 17, 18). The female vulva of the *maculosus* group species shows just two single receptacula semines.

The members of the *spinosus* group are relatively small spiders of a light colour. The cephalothorax is more rounded than in the *maculosus* group and the chelicerae are shorter (fig. 36, 46). In all species of the *spinosus* group there are very long and strong bristles on the abdomen and the cephalothorax. The receptacula semines of the female vulva are more or less distinctly divided into two parts.

Key to the species groups of *Australomimetes* n. gen.

- 1 Generally large spiders with the typical shape of a *Mimetus*. Cephalothorax with a distinct dorsal pattern. Chelicerae long with tubercles at the front. Females have two single receptacula semines, but sometimes also an "atrium" which is well separated from the receptaculum. **maculosus group** (p. 116)
- Light coloured, relatively small spiders. Cephalothorax without a distinct pattern, but with many very long and strong dorsal bristles. Chelicerae short without tubercles. Females with divided receptacula semines. **spinosus group** (p. 129)

The *maculosus* group Key to the species

- | | |
|---|-------------------------------|
| 1 Length of the cephalothorax 2 mm or longer. | 2 |
| — Length of the cephalothorax less than 2 mm. | 15 |
| 2 Male. (The males of <i>A. annulipes</i> , <i>childersiensis</i> , <i>hartleyensis</i> , <i>kioloensis</i> , <i>raveni</i> , <i>robustus</i> are unknown.) | 3 |
| — Female. | 6 |
| 3 Medianapophysis hook shaped with a large pointed tip (figs. 22, 23). | 4 |
| — Tip of the medianapophysis complex and more or less rounded (figs. 7, 8). | 5 |
| 4 Paracymbium with a prominent tooth near its distal end (fig. 22). | |
| | maculosus (RAINBOW) |
| — Paracymbium simple, shovel-like. | pseudomaculosus n. sp. |
| 5 Paracymbium large, divided into several lobes (fig. 7). | burnetti n. sp. |
| — Paracymbium simple. | sydneyensis n. sp. |
| 6 Ventral plate (anterior edge) of the epigynum weakly developed, behind this two oval deepening (fig. 10, 16). | 7 |
| — Ventral plate well developed, it reaches or overlaps the posterior edge of the epigynum (figs. 30, 31). | 11 |
| 7 Dorsal plate (posterior edge) of the epigynum bipartite and bent anteriorly. It overlaps the grooves. | childersiensis n. sp. |
| — Plates of different shape. | 8 |
| 8 Ventral plate with a little knob on its anterior edge. | kioloensis n. sp. |
| — Plates of different shape. | 9 |
| 9 Ventral plate with a broad median notch. | annulipes n. sp. |
| — Ventral plate reduced to two semicircular walls (figs. 21, 25). | 10 |

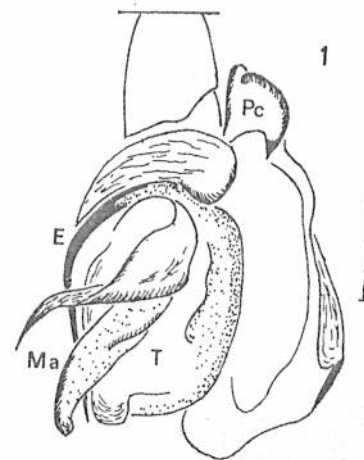
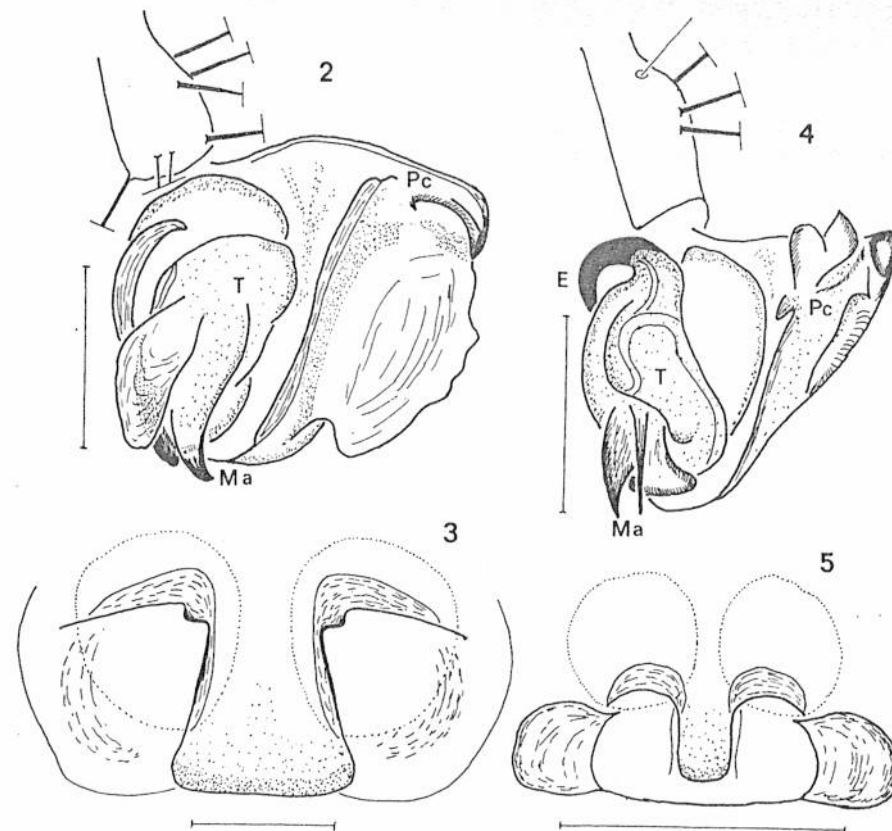


Fig. 1: *Mimetus laevigatus* (KEYS.), male, right palpus retrolateral.



Figs. 2-3: *Gelanor latus* (KEYS.). 2: Male, right palpus retrolateral. 3: Female, epigynum. — Figs. 4-5: *Ero furcata* (VILLERS). 4: Male, right palpus retrolateral. 5: Female, epigynum.

- 10 Dorsal plate with a drop-shaped "scape".
 — Dorsal plate with no "scape".
 11 Ventral plate simple, nearly triangular (fig. 30).
 — Plates of different shape.
 12 Ventral plate with a septum on its surface (fig. 26).
 — Ventral plate without septum.
 13 Tip of the septum lanceolar.
 — Tip of the septum trapezoid.
 14 Ventral plate scape with a thin prominent stylus.
 — Stylus of the ventral plate nearly as wide as it is long (fig. 9).
 15 Epigynum very simple. The ventral plate covers a large "atrium" at each side. (The male is unknown).
 — Epigynum with a scape-like ventral plate. Male palpus with a simple broad paracymbium. Medianapophysis a large flat sclerite.

maculosus (RAINBOW)
pseudomaculosus n. sp.
sydneyensis n. sp.
raveni n. sp.
robustus n. sp.
hartleyensis n. sp.
burnetti n. sp.
heretelianus n. sp.
daviesianus n. sp.

***Australomimetes annulipes* n. sp. (Fig. 6)**

Holotype: 1 female from Lord Howe Island, New South Wales, February 1971, (AMS).

Paratypes: 2 females from the same locality, (AMS).

Etymology: Species named on account of the typical annulated legs.

Female: Cephalothorax 2.4 mm long, 1.8 mm wide, light yellowish brown with dark brown spots. Eye region dark brown, between this and the fovea a dark median band with an indistinct lateral boundary. Two brown spots beside the fovea. Margin of the thoracic part broad and dark brown. Chelicerae dark brown, very long. Sternum nearly as long as it is broad, dark brown with yellow spots along the margin and behind the labium. Labium and gnathocoxae dark brown with the distal parts lighter.

Abdomen 2.5 mm long, 2.0 mm wide. Dorsal side light yellow with some indistinct grey and white spots. From lateral to ventral side two large grey spots. Spinnerets light brown surrounded by little grey spots.

Legs light yellow with distinct brown rings. The femora also with brown spots. Only the tarsi without brown pattern. Many very long setae. Trichobothrium on metatarsus I—III 0.9, metatarsus IV without a trichobothrium.

Measurements (mm):

	I	II	III	IV
Fe	4.0	3.3	2.7	3.2
Pt	1.2	0.9	0.7	0.7
Ti	3.8	2.6	2.0	2.6
Mt	3.5	2.6	1.8	2.5
T	1.5	1.2	1.1	1.2

Female genitalia: The well sclerotized anterior plate has a large median notch (fig. 6). The sclerotized openings are bounded laterally by large walls. The posterior plate of the epigynum is slightly sclerotized and shows a median tip anteriorly. There are two large receptacula semines.

Records: Only the type-specimens are known.

***Australomimetes burnetti* n. sp. (Figs. 7–9)**

Holotype: 1 male from Lockerbie, North-East Queensland, 30. 1. 1975 (QMB). **Paratype:** 1 female from Burnett Range, via Tansey, South-East Queensland, 26. 3. – 5. 9. 1977, (QMB).

Etymology: Species named after Burnett Range, where the paratype was found in 1977.

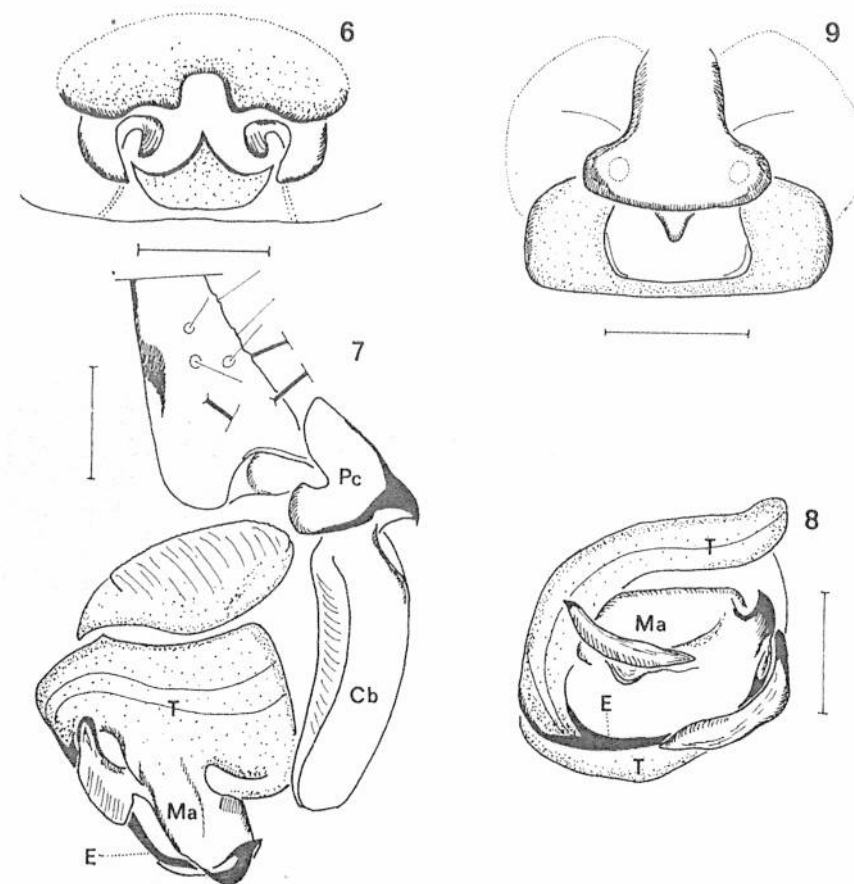


Fig. 6: *Australomimetes annulipes* n. sp., female, epigynum. — Figs. 7–9: *Australomimetes burnetti* n. sp. 7: Male, right palpus retrolateral. 8: Palpus expanded, distal-ventral. 9: Female, epigynum.

Male: Cephalothorax 2.0 mm long, 1.6 mm wide, light yellow with dark brown pattern. A dark brown median band from posterior part of the cephalothorax which does not reach the eye region. Besides this band four dark brown spots. Eye region with some indistinct brown spots. Sternum light yellow, five grey spots along the posterior margin. Chelicerae yellow, its distal parts brownish. Labium and gnathocoxae light brown. Distal parts of gnathocoxae lighter to nearly white.

Abdomen 2.0 mm long, 1.4 mm wide, with two flat hooks. Dorsal side yellowish with some grey spots. From the area between the hooks to the anal tubercle a white median band. Ventral side light yellow. Spinnerets light yellow with indistinct grey spots.

Legs light yellow, with brown rings and spots. Only tarsi unicoloured yellow. Trichobothrium on metatarsi I and II 0.9, on III 0.95, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.2	2.3	1.7	2.4
Pt	0.7	0.7	0.5	0.6
Ti	2.8	2.1	1.8	1.9
Mt	3.7	2.2	1.3	2.0
T	1.4	1.0	0.7	0.9

Male palpus: Rounded cymbium with a well developed paracymbium which shows a shovel-like part at its distal margin (fig. 7). Medianapophysis (figs. 7, 8) with a well sclerotized bipartite curved part which conducts the embolus. At the base of the medianapophysis a flat lamellar part to be seen.

Female: Cephalothorax 2.9 mm long, 1.9 mm wide, in size and colouration as in the male, but the spots darker brown. Abdomen 2.8 mm long, 1.9 mm wide, coloured as in the male. The abdominal hooks are well developed.

Legs coloured as in the male, but brown pattern more indistinct. Trichobothrium on metatarsus as in the male.

Measurements:

	I	II	III	IV
Fe	4.0	3.3	2.3	3.0
Pt	1.0	1.0	0.6	0.7
Ti	4.4	2.9	1.8	2.2
Mt	3.7	2.5	1.7	2.1
T	1.5	1.4	1.0	1.1

Female genitalia: Dorsal plate of the epigynum (fig. 9) with a large and deep groove. Over this the ventral plate which is well sclerotized and lobed at both sides. There is a broad septum between the median groove and the ventral plate; appears from below as a rounded tip.

Records: Botany, New South Wales, 1. 4. 1968; North-East Queensland: Crystal Cascades, January 1981, Mt. Cook, 12. 11. 1975; Elginvale, South-East Queensland, 26. 3. - 28. 10. 1977; Broken Head via Byron Bay, New South Wales, 13. 6. - 7. 11. 1976.

Australomimetes childersiensis n. sp. (Fig. 10)

Holotype: 1 female from Mt. Goonaneman near Childers, South-East Queensland, 3. - 7. 11. 1980, (QMB).

Etymology: Species named after Childers, South-East Queensland.

Female: Cephalothorax 2.2 mm long, 1.5 mm wide, light yellow with dark brown pattern as in the other members of the *A. maculosus*-group but the median band is dissected into a row of indistinct spots between the fovea and the eye region. Sternum yellowish white, without pattern. Chelicerae unicoloured dark brown. Labium and gnathocoxae light brown, its distal parts nearly white.

Abdomen 2.6 mm long, 2.3 mm wide, light grey with many small white spots. "Folium" darker grey, but indistinct. Ventral side is coloured like the dorsal side. Spinnerets whitish, the anterior pair light brown.

Legs light yellow with indistinct light brownish rings. Setae very long and fine. Trichobothrium on metatarsus I-III 0.85 mm, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.4	2.9	2.0	2.7
Pt	0.8	0.6	0.4	0.6
Ti	3.9	2.7	1.3	1.9
Mt	3.3	2.9	1.2	1.7
T	1.3	1.3	0.9	0.9

Female genitalia: Epigynum (fig. 10) with a complicated plate. Posterior margin with two flat grooves near the median. Anterior margin characterized by two large horns with a deep median notch. The openings appear dorsally of the swollen lateral part of the plate and are bounded by a rounded swelling. Inside there is a large globular "atrium" at each side. The two receptacula semines are stretched anteriorly.

Records: Only the female holotype is known.

Australomimetes daviesianus n. sp. (Figs. 11-13)

Holotype: 1 male from Mt. Hartley, North-East Queensland, 6. 11. 1974, (QMB).

Paratypoids: 2 females from Mt. Finlay, North-East Queensland, 2. 12. 1975, (QMB).

Etymology: This species is dedicated to Dr. Valerie DAVIES, Brisbane.

Male: Cephalothorax 1.6 mm long, 1.0 mm wide, light yellow with brown pattern. A brown median band from the fovea to the eye region. If this band reaches the cephalic part it is divided into three smaller bands which border the cephalic part. Sternum light yellow with a small brown margin. Chelicerae dark brown. Labium and gnathocoxae light brown. Abdomen 1.8 mm long, 1.2 mm wide, yellowish. Lateral parts with little white spots. Dorsal side with two indistinct white hooks. A light grey "folium" is developed. Ventral side unicoloured yellowish white. Spinnerets light brown.

Legs light yellow with indistinct light brown rings. Trichobothrium on metatarsus I-III 0.8, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.2	2.5	1.8	2.0
Pt	0.7	0.4	0.3	0.4
Ti	3.2	2.1	1.1	1.6
Mt	3.1	2.0	1.0	1.3
T	1.4	1.1	0.5	0.6

Male palpus: The rounded cymbium has a simple paracymbium which has a sclerotized hook at its dorsal side (fig. 11). The unexpanded bulbus shows a large flat shovel-like medianapophysis (figs. 11, 12). In the expanded state several parts of the medianapophysis build a ring which conducts the embolus.

Female: Cephalothorax 2.2 mm long, 1.4 mm wide, in colouration similar to that of the male. Abdomen 3.1 mm long, 2.9 mm wide, coloured as in that of the male.

Female and male show no differences in respect of leg colouration and spination.

Measurements:

	I	II	III	IV
Fe	4.1	3.0	2.0	2.7
Pt	1.0	0.8	0.5	0.6
Ti	4.2	2.8	1.3	2.1
Mt	3.5	2.6	1.3	1.9
T	1.6	1.1	0.8	0.9

Female genitalia: Median plate of the epigynum (fig. 13) like a scapus, its posterior margin broad and rounded. On the ventral side of this ventral median plate a small septum which has a knob at both its posterior and anterior end. The openings are in deep grooves beside the ventral plate. Two receptacula semines are developed.

Records: Only the type localities are known for this species.

Australomimetes hartleyensis n. sp. (Fig. 14)

Holotype: 1 female from Mt. Hartley, North-East Queensland, 6. 11. 1974, (QMB).

Paratypoid: 1 female from the same locality, (QMB).

Etymology: Species named after Mt. Hartley, the locus typicus.

Female: Cephalothorax 2.3 mm long, 1.6 mm wide, light yellow. Eye region brown. Between the eyes and the fovea a brown median band; beside this three brown spots. Thoracic part with a brown margin. Sternum light yellow with grey spots between the coxae. Chelicerae strong, dark brown. Labium and gnathocoxae brown, their distal parts lighter.

Abdomen 2.0 mm long, 1.5 mm wide. Dorsal side with two indistinct hooks on the anterior third of the length. Between this hooks there is a broad white band. Another white median band reaches the spinnerets. Ventral and dorsal side yellow with some grey spots.

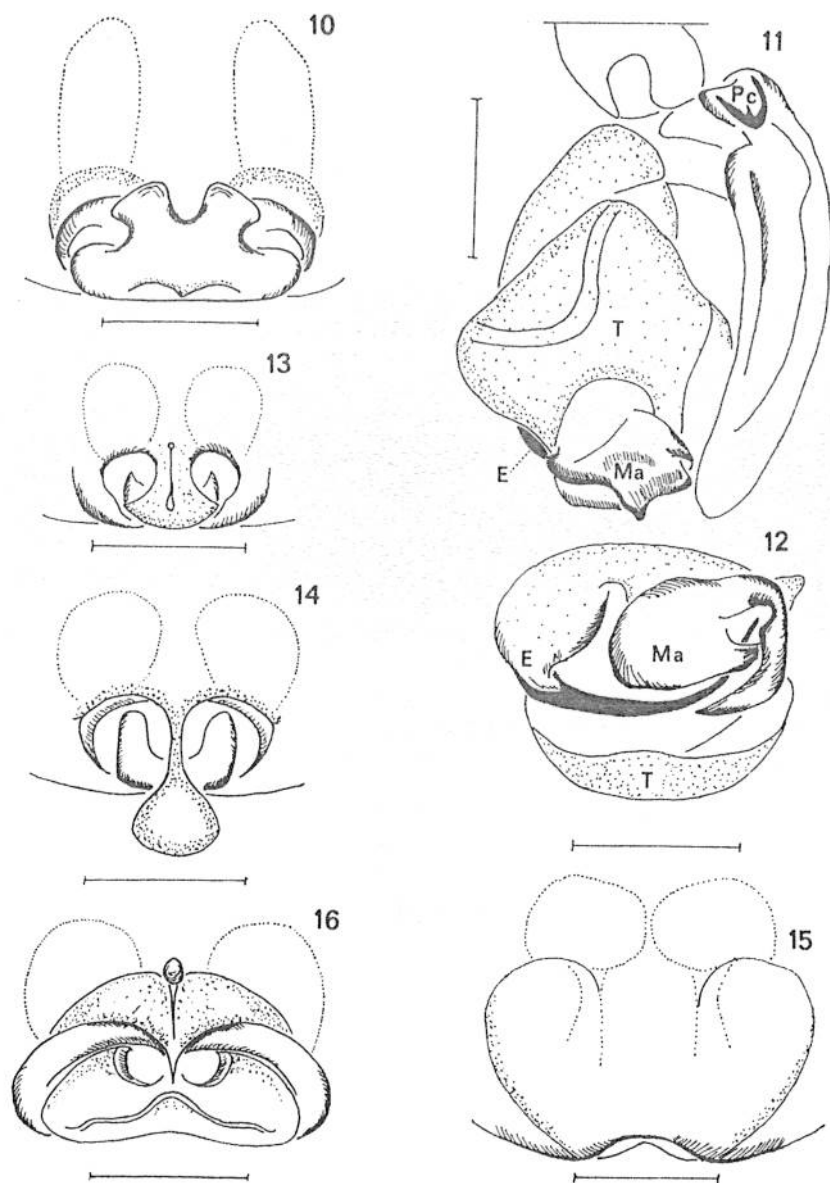


Fig. 10: *Australomimetes childersiensi* n. sp., female, epigynum. — Figs. 11–13: *Australomimetes dapiesianus* n. sp. 11: Male, right palpus retrolateral. 12: Palpus expanded, distal-ventral. 13: Female, epigynum. — Fig. 14: *Australomimetes hartleyensis* n. sp., female epigynum. — Fig. 15: *Australomimetes herteliani* n. sp., female epigynum. — Fig. 16: *Australomimetes kioloensis* n. sp., female epigynum.

Spinnerets brown, surrounded by grey spots.

Legs yellowish brown with many light grey spots and rings. Only tarsi unicoloured yellow. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.1	2.6	1.7	2.3
Pt	0.7	0.4	0.4	0.5
Ti	3.1	2.2	1.3	2.0
Mt	2.6	1.7	1.3	1.8
T	1.2	0.9	0.7	1.0

Female genitalia: From a ventral view the large septum between the ventral and the dorsal plate projects like a scapus (fig. 14). Its posterior end is characterized by a flat rounded plate. Two well developed receptacula are to be seen.

Records: Birthday Mt., Cape York, Queensland (in desert gold mine), 24. 7. 1979; Crystal Cascades, North-East Queensland, January 1981.

The male of this species is unknown.

Australomimetes herteliani n. sp. (Fig. 15)

Holotype: 1 female from Edmonton, North Queensland, 30. 8. 1976, (AMS). The tube of the holotype also contains an egg sack. Paratypoid: 1 female from Edmonton, 24. 11. 1969, (AMS).

Etymology: This species is dedicated to Dr. R. HERTEL, Dresden.

Female: Cephalothorax 1.8 mm long, 1.1 mm wide. Light yellow with a grey stripe from the fovea to the eye region. Beside it indistinct grey stripes and spots. Three rows of long and strong bristles. Chelicerae light yellow, long with typical spination. Sternum, labium and gnathocoxae light yellow with small brown margins.

Abdomen 2.1 mm long, 1.5 mm wide, ellipsoid. Near the middle of the length a broad indistinct hook at each side. Colouration yellow. Dorsal side has some small grey spots, between the hooks a white band. Spinnerets yellow, anterior with light brown stripes. Legs light yellow, only the distal part of femur and patella I brown annulated. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	4.9	3.8	2.0	2.9
Pt	0.9	0.8	0.4	0.5
Ti	5.0	3.7	1.6	2.2
Mt	4.4	2.6	1.5	2.0
T	1.9	1.1	0.8	0.8

Female genitalia: Epigynum very simple. In this respect *A. herteliani* differs from all other *Australomimetes* species. There is a single broad opening at the posterior end of the slightly sclerotized ventral plate (fig. 15). Dorsal of this plate there are two large pocket like cavities from which the opening derives. There is a single pair of seminal receptacula developed.

Egg sack globular, white, with loops of yellow silk outside. The egg sack contains five eggs.

Records: Only the female types are known.

Australomimetes kioloensis n. sp. (Fig. 16)

Holotype: 1 female from Kioloa S. F., 16 km north of Bateman's Bay, New South Wales, 23. 4. – 17. 5. 1979, (AMS).

Etymology: The species named after Kioloa, the locus typicus.

Female: Cephalothorax 3.5 mm long, 2.4 mm wide, yellowish with brown pattern. A median brown band between the eye region and the fovea. Beside this four brown spots

on each side. Little brown spots also near the eye region. Sternum light yellow with five dark grey spots on posterior part. Chelicerae yellow, its distal parts brownish. Labium and gnathocoxae light brown, distal parts nearly white.

Abdomen 3.4 mm long, 2.2 mm wide, with two flat white hooks. Yellowish with indistinct white and grey spots. Between the hooks a white band which reaches the anal tubercle. Ventral side like the dorsum. Spinnerets light yellow, the anterior pair dark.

Legs yellow with indistinct brown spots and rings. Tarsi unicoloured yellowish. Metatarsus I–III has a trichobothrium near 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	4.3	3.1	2.7	3.4
Pt	1.2	1.2	1.1	1.1
Ti	4.9	3.3	2.0	2.3
Mt	4.1	2.9	2.0	2.5
T	1.4	1.4	1.1	1.3

Female genitalia: A deep and broad groove is visible (fig. 16). Its posterior margin is a sclerotized ledge. There are gutter-like lateral grooves which reach the openings. Ventral plate has a median septum which has knob at its anterior tip.

Records: Only the holotype is known. The male of this species is unknown.

***Australomimetus maculosus* (RAINBOW, 1904) n. comb. (Figs. 17–23)**

Mimetus maculosus RAINBOW, 1904

Type: 1 female from Rb. Jenolan, New South Wales, 29. 8. 1901, (AMS). There is also a note on the label: "This specimen is a representative of the TYPE lot".

RAINBOW (1904) described this species very well but he gives no figure of the epigynum; hence the following description:

Male palpus: There are four to five strong bristles on the dorsal edge of the rounded cymbium (fig. 22). The paracymbium is simple with a small tooth at the distal end. In the unexpanded state the complicated medianapophysis has the form of a large and well sclerotized hook.

The function of the sclerites during copulation were examined. In the expanded and arrested state the sclerites are in the position shown in fig. 23. One part of the medianapophysis rests on the underside of the paracymbium; another, together with the edge of the tegulum, conducts the embolus. The hook-shaped part lies over the paracymbium and serves to arrest the bulbus at the "scape" of the female epigynum. This arrangement has been observed in many other Araneoidae (HEIMER, 1981).

Female genitalia: The epigynum shows a large double groove bordered at the forward end by a flat wall. The median plate is well developed behind this groove (fig. 21). Its median section shows a large drop shaped elevation which has a deepening like the scape of the epigynum of some Araneidae.

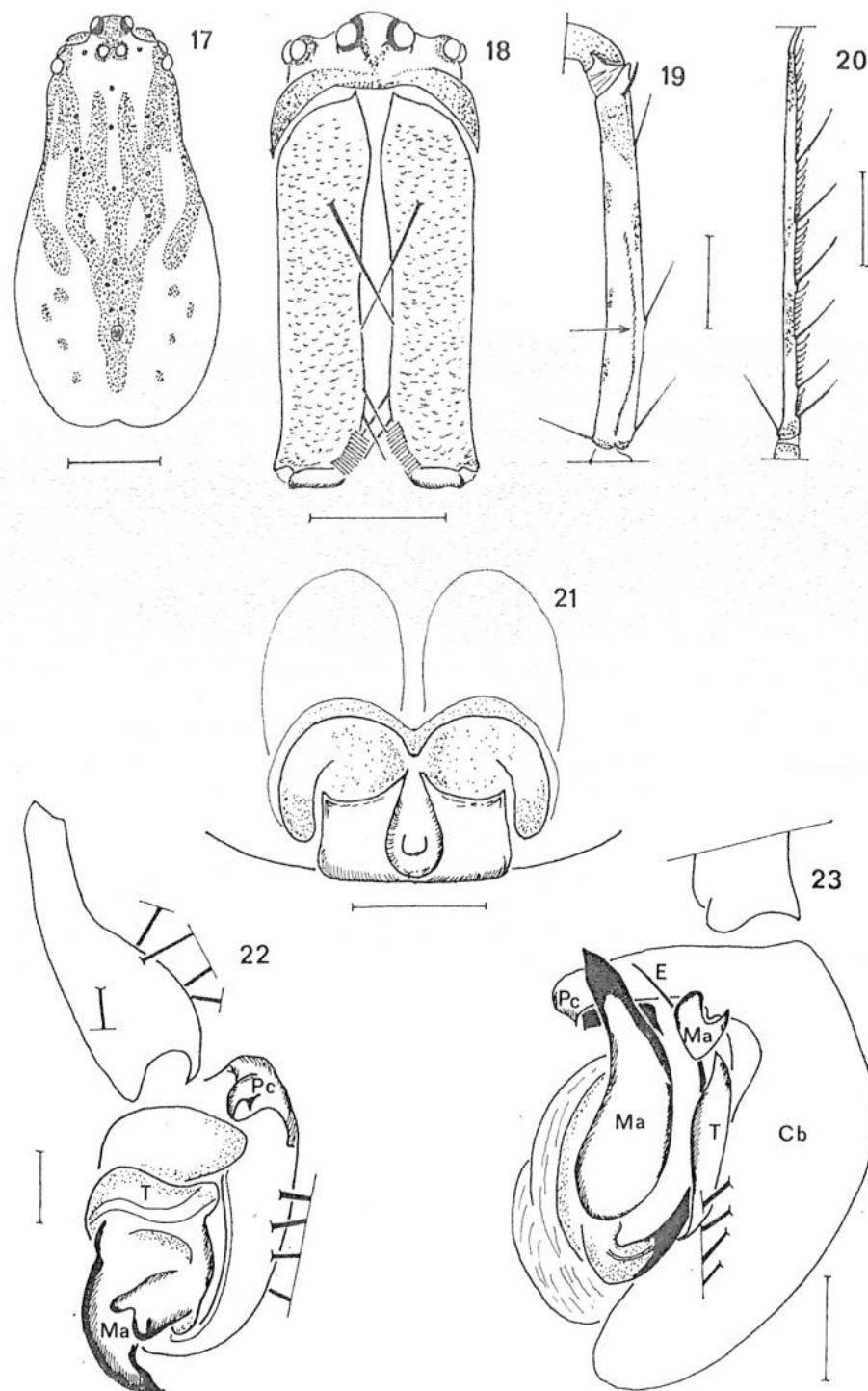
Records: Queensland: Nagarigoon in the Lamington National Park, Kilcoy Creek, Mount Goonaneman near Childers, Dandabah in the Bunya Mountains National Park, Crystal Cascades, Upper Noosa River, Broken Bay, Mount Lewis, Edmonton, Kuranda; New South Wales: Minnamurra Falls, Pittwater near Sydney, Winston Hills near Sydney, Lindfield.

***Australomimetus pseudomaculosus* n. sp. (Figs. 24+25)**

Holotype: 1 male from Nagarigoon, Lamington National Park, South-East Queensland, 1.–8. 4. 1976, (QMB). **Paratypoid:** 1 female from the same locality, (QMB).

Etymology: This species named on account of its resemblance to *A. maculosus*.

Male: Cephalothorax 2.5 mm long, 1.7 mm wide, light yellowish brown. Between the



Figs. 17–23: *Australomimetus maculosus* (RAINBOW). 17–21: Female. 17: Cephalothorax, dorsal. 18: Face view. 19–20: Left leg I. 19: Femur retrolateral. 20: Metatarsus dorsal. 21: Epigynum. 22–23: Male, right palpus. 22: Retrolateral. 23: Expanded, dorsal.

eye region and the fovea a brown pattern similar to that of *A. maculosus*. Sternum light yellow with some indistinct brown spots at the margin. Chelicerae brown, very long, typical spination. Labium and gnathocoxae dark brown, their distal parts lighter.

Abdomen 2.3 mm long, 2.0 mm wide, with two flat hooks on the anterior third. Colouration grey with white and yellow spots on the dorsal side. Spinnerets yellowish brown. Legs light yellow with indistinct brown spots and rings, tarsi unicoloured yellow. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	4.4	3.3	2.3	2.8
Pt	1.0	0.9	0.4	0.5
Ti	5.0	3.5	1.7	2.5
Mt	5.0	3.4	1.7	2.3
T	1.9	1.5	1.0	1.1

Male palpus: Cymbium has a large but simple paracymbium (fig. 24). The large, curved medianapophysis very similar to that of *A. maculosus*, but the rounded part at the base of the tip distinct.

Female: Cephalothorax 2.6 mm long, 1.7 mm wide. Abdomen 2.5 mm long, 2.4 mm wide. Both cephalothorax and abdomen in size and colouration as for the male.

Colouration of the legs as for the male.

Measurements:

	I	II	III	IV
Fe	4.1	3.4	2.0	2.5
Pt	1.0	0.9	0.5	0.7
Ti	4.4	3.1	1.6	2.3
Mt	3.7	2.8	1.5	2.0
T	1.7	1.5	0.9	1.1

Female genitalia: Dorsal plate of the epigynum with a flat notch on its posterior margin (fig. 25). Two anterior lateral swellings, which are well sclerotized and surround a slit-shaped opening at each side. Inside this there is a pair of rounded cavities. The receptacula semines are extended towards the front.

Records: Broken Head via Byron Bay, New South Wales, 13. 6. – 7. 11. 1976; Gibraltar Range National Park, New South Wales, 30. 3. 1980.

Australomimetes raveni n. sp. (Fig. 26)

Holotype: 1 female from Boonjee, North-East Queensland, 3. – 6. 6. 1978, (QMB).

Etymology: This species is dedicated to Dr. R. RAVEN, Brisbane.

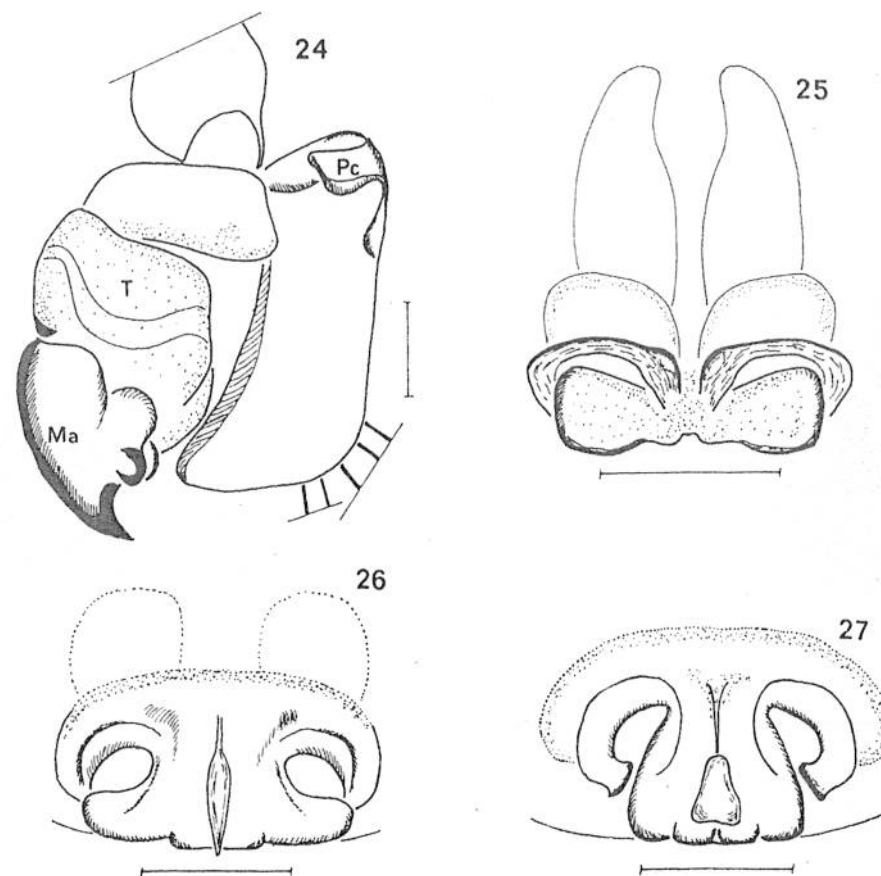
Female: Cephalothorax 2.2 mm long, 1.6 mm wide, yellow with a broad brown margin. Between the eye region and the fovea a brown median band. Beside this two indistinct brown spots at each side. Sternum yellow with a broad light brown margin. Between coxae I and II a brown spot at each side. Chelicerae dark brown. Labium and gnathocoxae brown, their distal parts lighter.

Abdomen 2.7 mm long, 2.1 mm wide, with two small hooks. Dorsal side light grey with little white spots, between the hooks a white median band which almost reaches the spinnerets. Ventral side lighter than the dorsal side. Spinnerets yellowish white.

Legs yellow with broad light brown rings, tarsi unicoloured yellow. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.5	2.8	2.1	2.7
Pt	0.8	0.8	0.5	0.5
Ti	3.6	2.6	1.5	1.9
Mt	—	2.0	1.3	1.9
T	—	1.2	0.8	1.0



Figs. 24–25: *Australomimetes pseudomaculosus* n. sp. 24: Male, right palpus, retrolateral. 25: Female, epigynum. — Fig. 26: *Australomimetes raveni* n. sp., female, epigynum. — Fig. 27: *Australomimetes robustus* n. sp., female, epigynum.

Female genitalia: Epigynum (fig. 26) characterized by a broad plate which has two small notches on its posterior margin. The openings are bounded by a gutter-like groove. There is a lancet-like septum in the center of the plate. There are two receptacula.

Records: Only the female holotype is known.

Australomimetes robustus n. sp. (Fig. 27)

Holotype: 1 female from Rochedale, South-East Queensland, 23. 11. 1979, (QMB).

Etymology: The species is named *robustus* because it is the largest known *Australomimetes*.

Female: Cephalothorax 3.5 mm long, 2.4 mm wide, light yellow with brown pattern. Cephalic part dark brown, thorax with a small brown margin. Between the fovea and the eye region there is a brown median band; beside this some indistinct brown spots. Sternum light yellow with an indistinct spot near the margin. Chelicerae strong, dark brown. Labium and gnathocoxae light brown, their distal parts nearly white.

Abdomen 3.9 mm long, 3.0 mm wide, dorsal yellowish with large dark grey spots. Two flat hooks. Between these a white median band which reaches the spinnerets. Ventral

side greyish with the median part white. Spinnerets yellowish white, the anterior pair with a black spot at each side.

Legs yellowish. Femora I and II with large dark brown spots. The other segments have only small brown spots, tarsi unicoloured yellow. Setae short but strong. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	4.0	3.3	2.5	3.3
Pt	1.1	1.0	0.7	0.7
Ti	3.9	3.0	1.9	2.8
Mt	4.0	3.0	1.8	2.7
T	1.5	1.4	1.0	1.1

Female genitalia: Plate of the epigynum (fig. 27) trapezoid with four little notches on its posterior margin. Lateral parts with a gutter-like groove which reaches the openings. In the center of the plate there is a small septum which widens towards the rear into a flat plate.

Records: Only the holotype is known. The male of this species is unknown.

Australomimetes sydneyensis n. sp. (Figs. 28–31)

Holotype: 1 male from Minnamurra Falls, New South Wales, 19. 9. 1967, (AMS).

Paratype: 1 male from the same locality.

Etymology: The species is named after Sydney, New South Wales.

Male: Cephalothorax 2.0 mm long, 1.6 mm wide, yellow with large grey spots between the fovea and the eye region and also near the margin of thoracic part. Sternum light yellow with three indistinct grey spot at each side. Chelicerae light yellow with some small grey spots. Labium and gnathocoxae coloured as the sternum, their distal parts dark. Abdomen 2.0 mm long, 1.8 mm wide, with many long setae. Dorsal side yellowish with grey spots and an indistinct "folium". Hooks very flat. Ventral side has a white lateral band, median whitish with two large grey spots. Spinnerets yellow and grey.

Legs light yellow with indistinct dark spots. Tarsi unicoloured yellow. Trichobothrium on metatarsus I and II 0.8, at III 0.9. Metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	4.1	2.5	1.8	2.3
Pt	0.9	0.9	0.5	0.5
Ti	3.9	2.4	1.4	1.9
Mt	3.9	2.2	1.2	1.7
T	1.7	1.4	0.8	0.9

Male palpus: The paracymbium has a simple lobe (fig. 28). Unexpanded bulbus (fig. 28) shows the complex medianapophysis as a spur with a rounded tip together with two more or less membranous lobes. Fig. 29 shows the topography of medianapophysis and embolus in an expanded state.

Female (from Royal Nat. Park near Sydney): Cephalothorax 2.4 mm long, 1.7 mm wide, coloured as for the male except for darker chelicerae. Abdomen 2.3 mm long, 1.8 mm wide, coloured as for the male, but "folium" more distinct. Also two flat hooks.

Legs with colouration and spination as in the male.

Measurements:

	I	II	III	IV
Fe	3.9	3.0	2.1	2.3
Pt	0.8	0.8	0.5	0.5
Ti	4.0	2.7	1.3	2.0
Mt	3.8	2.5	1.4	1.7
T	1.5	1.3	0.9	1.0

Female genitalia: From a ventral view (fig. 30) epigynum shows a triangular ventral plate and besides of this the sclerotized openings. As seen from aboral (fig. 31), the triangular plate is a part of the complex and very broad septum between the openings. There are two receptacula semines.

Records: Known from the type locality but also from the Royal National Park near Sydney, New South Wales, 4. 2. 1967.

The *spinosus* group
Key to the species

- 1 Length of the cephalothorax 2 mm or longer. *spinosus* n. sp.
- Length of the cephalothorax less than 2 mm. 2
- 2 Male. (The males of *A. subspinosus* and *triangulosus* are unknown.) 3
- Female. 4
- 3 Paracymbium has a prominent hook at its base (Fig. 33). *hirsutus* n. sp.
- Paracymbium without a prominent hook. *miniatus* n. sp.
- 4 Epigynum has a simple broad ventral plate (fig. 35). *hirsutus* n. sp.
- Epigynum more complex. 5
- 5 Ventral plate (anterior edge) of the epigynum developed to a small median septum which reaches the dorsal plate behind the epigastral furrow (fig. 40). *miniatus* n. sp.
- Epigynum otherwise. 6
- 6 Dorsal plate (posterior edge) very broad, at each side with a large lobe which partially overlaps the epigynal groove (fig. 47). *triangulosus* n. sp.
- Epigynum very complex, as seen in fig. 45. *subspinosus* n. sp.

Australomimetes hirsutus n. sp. (Fig. 32–36)

Holotype: 1 male from Spear Ck., North-East Queensland, 3. – 10. 11. 1975, (QMB).

Paratypes: 1 male, 1 female, 1 juvenile specimen from the same locality, (QMB).

Etymology: The species is named *hirsutus* (= hairy) on account of the fine white hairs on the abdomen.

Male: Cephalothorax 1.2 mm long, 1.0 mm wide, unicoloured yellow. From the fovea to the eye region three rows of long bristles. Sternum one fourth longer than wide, light yellow in colour. Chelicerae strong with strong bristles beside the claw furrow, yellow coloured. Labium and gnathocoxae darker than the chelicerae.

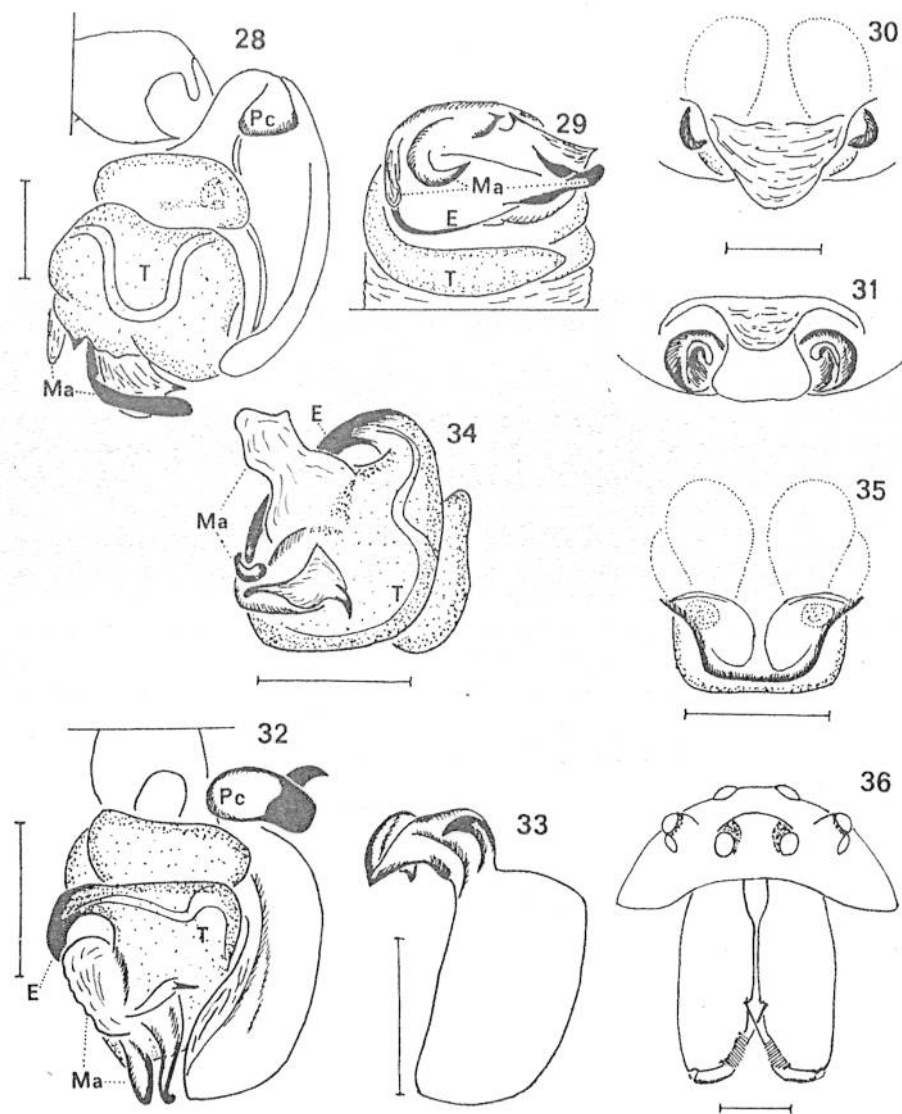
Abdomen 1.1 mm long, 1.2 mm wide, triangular with the greatest width in the posterior third. Dorsum light yellow with little white spots. Ventral side unicoloured yellowish. Cuticle with many long and very fine white hairs.

Legs yellow with light brown rings around the distal part of each segment. Setae very long. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.1	2.2	1.5	2.0
Pt	0.4	0.3	0.2	0.3
Ti	3.4	2.4	0.9	1.7
Mt	3.0	1.9	0.8	1.2
T	1.2	0.8	0.5	0.5

Male palpus: The cymbium has a complicated shovel-like paracymbium which has a curved spur on its dorsal edge (fig. 33). Unexpanded bulbus (fig. 32) shows all parts of the complicated medianapophysis as well as the base of the embolus. Medianapophysis with a large membranous lobe and two sclerotized tips which conduct the embolus. One of these tips has a small spur at its base.



Figs. 28–31: *Australomimetus sydneyensis* n. sp. 28–29: Male, right palpus. 28: Retro-lateral. 29: Expanded, distal-ventral. 30–31: Female, epigynum. 30: Ventral view. 31: Posterior view. — Figs. 32–36: *Australomimetus hirsutus* n. sp. 32–34: Male, right palpus. 32: Retro-lateral. 33: Cymbium dorsal. 34: Expanded, distal-ventral. 35: Female, epigynum. 36: Male, face view.

Female: Cephalothorax 1.3 mm long, 1.1 mm wide, in size and colouration as for the male. Abdomen 2.0 mm long, 2.6 mm wide, triangular. Colouration and hairs as in the male. Legs like those of the male, but much more annulated with dark rings at the distal end of the segments.

Measurements:

	I	II	III	IV
Fe	2.8	2.3	1.4	1.8
Pt	0.6	0.4	0.3	0.3
Ti	3.0	2.1	1.1	1.6
Mt	2.5	1.7	1.0	1.1
T	1.0	0.8	0.6	0.7

Female genitalia: Epigynum (fig. 35) characterized by a wide thin dorsal plate which is seen behind the ventral plate. The sclerotized openings lie under the thin ventral plate which is wider than it is long. There are four separated receptacula of which the median pair is the largest.

Records: Major Mt., North-East Queensland, 14. – 20. 6. 1978.

Australomimetus miniatus n. sp. (Figs. 37–40)

Holotype: 1 male from Gordon, Iron Ranch, North-East Queensland, 24. – 30. 6. 1976, (QMB). Paratype: 1 female from the same locality, (QMB).

Etymology: This species is named on account of its small size.

Male: Cephalothorax 1.3 mm long, 1.0 mm wide, light yellow, a little darker in the eye region. Some long bristles in front of the eyes. Lateral parts of the thorax vaulted as in some males of pholcid spiders. Sternum as long as it is wide, white. Chelicerae small, white but with the typical spination of the Mimetidae. Labium and gnathocoxae also white.

Abdomen 1.2 mm long, 1.3 mm wide, yellowish white. Triangular with a rounded anterior tip. Spinnerets white, as is the ventral side of the abdomen.

Legs light yellow with some indistinct light brown rings. Setae long and fine. Trichobothrium on metatarsus I–III 0.9, metatarsus IV without a trichobothrium.

Measurements:

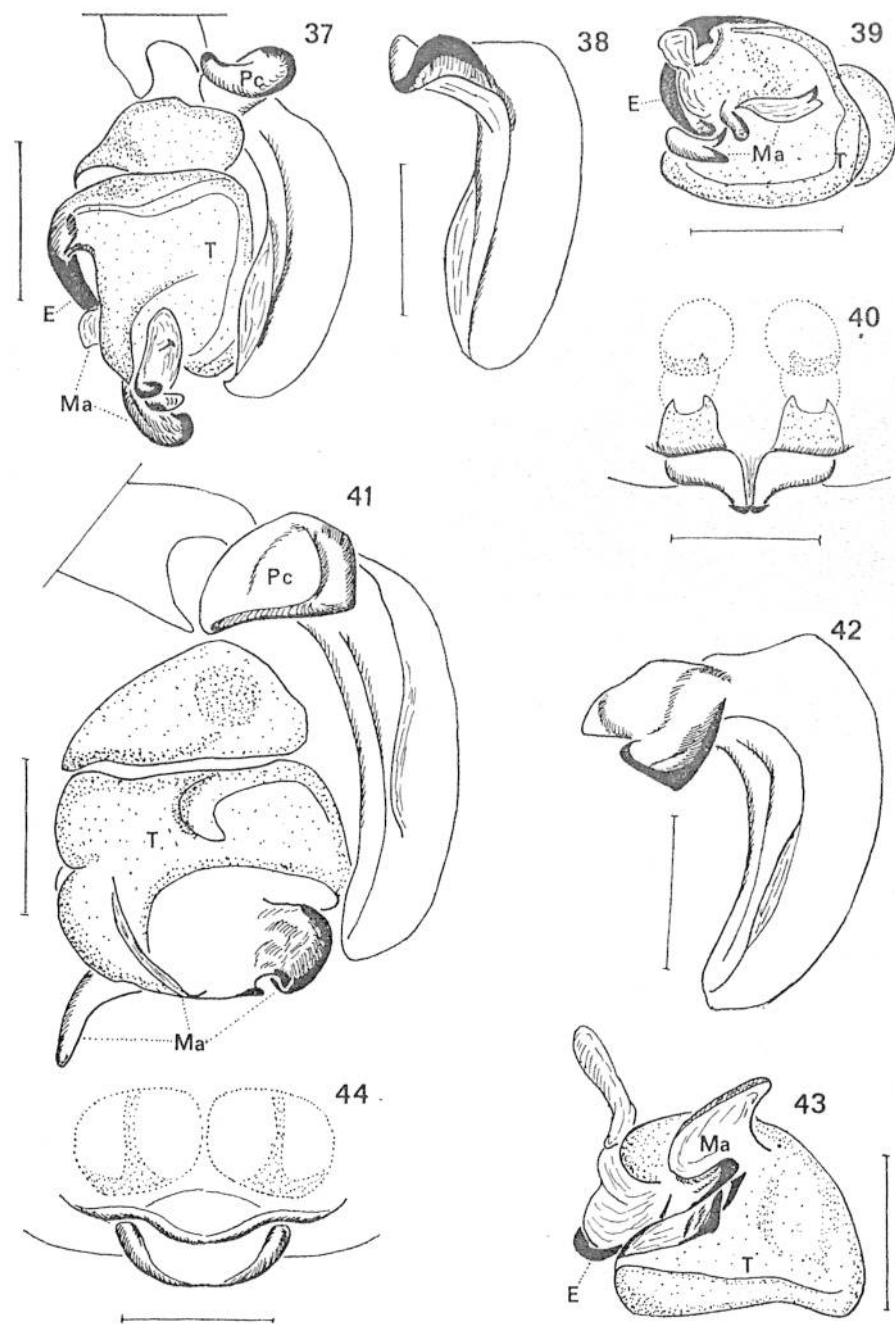
	I	II	III	IV
Fe	3.5	2.7	1.6	2.2
Pt	0.5	0.3	0.2	0.3
Ti	2.7	2.1	0.8	1.8
Mt	3.2	2.4	1.0	1.3
T	1.5	1.1	0.7	0.6

Male palpus: Cymbium has a simple Paracymbium (fig. 38). Unexpanded bulbus shows all parts of the complicated medianapophysis which are turned against the tip of the cymbium. Medianapophysis has a small membranous part and three other curved sclerites (figs. 37, 39). The embolus is very short. Its distal part is blunt and of light colour. It is not clear whether the embolus is broken off during copulation because of the same state at both palps.

Female: The female is of the same size and colouration as the male and it has equally long legs.

Female genitalia: Both ventral and dorsal plates of the epigynum are connected by a large median septum (fig. 40). Posterior tip of the epigynum has two well sclerotized knobs. Lateral parts of the ventral plate build pocket-like cavities. Four receptacula seminales lie in two pairs one behind the other.

Records: Only the type specimens are known.



Figs. 37-40: *Australomimetus miniatus* n. sp. 37-39: Male, right palpus. 37: Retrolateral. 38: Cymbium dorsal. 39: Expanded, distal-ventral. 40: Female, epigynum. — Figs. 41-44: *Australomimetus spinosus* n. sp. 41-43: Male, right palpus. 41: Retrolateral. 42: Cymbium dorsal. 43: Expanded, distal-ventral. 44: Female, epigynum.

Australomimetus spinosus n. sp. (Figs. 41-44)

Holotype: 1 male from Homevale, Middle East Queensland, 1. - 7. 4. 1975, (QMB).

Paratypes: 1 male, 2 females from the same locality (QMB).

Etymology: The species named on account of the conspicuous spination of the spiders body and legs.

Male: Cephalothorax 2.3 mm long, 1.3 mm wide, yellowish in colour. Between the fovea and the eye region a grey Y-shaped pattern. Eye region rather dusky. Sternum yellow with a small brown margin. Chelicerae yellowish brown, distal parts brown. Near the base of chelicerae a small brown stripe. Labium and gnathocoxae light brown, darker than the sternum.

Abdomen 1.8 mm long, 1.6 mm wide. Dorsum grey and white spotted. In the cardiac region there is a dusky Y-shaped pattern; between this and the spinnerets a light "folium". Ventral side white to yellow with some grey spots. Spinnerets conical, light brown.

Legs yellow with some irregular brown spots. Trichobothrium on metatarsi I and II 0.85, at the third metatarsus 0.7.

Measurements:

	I	II	III	IV
Fe	3.9	2.5	1.5	1.9
Pt	0.7	0.6	0.4	0.5
Ti	3.5	2.8	1.1	1.5
Mt	3.4	2.2	1.1	1.3
T	1.3	0.8	0.6	0.6

The legs and the whole body have long and very strong black spines which are mounted in small dark sockets.

Male palpus: Cymbium not modified. Paracymbium large but simple with a sclerotized hook which is seen from dorsal view (fig. 42). The unexpanded bulbus (fig. 41) shows the strong shovel-like part of the medianapophysis and also the finger-shaped part of the same sclerite. The embolus can only be seen from a ventral view. The expanded bulbus (fig. 43) is characterized by the projecting finger-shaped part of the medianapophysis. The complicated base section which conducts the embolus is situated near the shovel-like part.

Female: Cephalothorax 1.0 mm long, 1.4 mm wide. Abdomen 2.5 mm long, 2.6 mm wide, ovoid. The body in proportion and colouration like that of the male, but much more strongly spinated.

Legs as in the male, without any pattern.

Measurements:

	I	II	III	IV
Fe	3.7	2.6	1.5	2.0
Pt	0.7	0.6	0.3	0.5
Ti	3.7	2.5	1.1	1.5
Mt	2.7	1.8	0.9	1.4
T	1.1	0.8	0.5	0.6

Female genitalia: Epigynum (fig. 44) characterized by two sclerotized ledges of which the anterior one is slightly inclined towards the median groove of the epigynum. The posterior ledge is divided into two lateral parts which border the median groove. Each of the two seminal receptacula is divided.

Records: Mt. Coot-Tha, Brisbane, South-East Queensland, 1. 1. 1974; Roedean St., Fig Tree Pocket, Brisbane, 4. 6. 1977.

Australomimetus subspinosus n. sp. (Fig. 45)

Holotype: 1 female from Richmond Range, North New South Wales, 17. - 18. 4. 1976, (QMB).

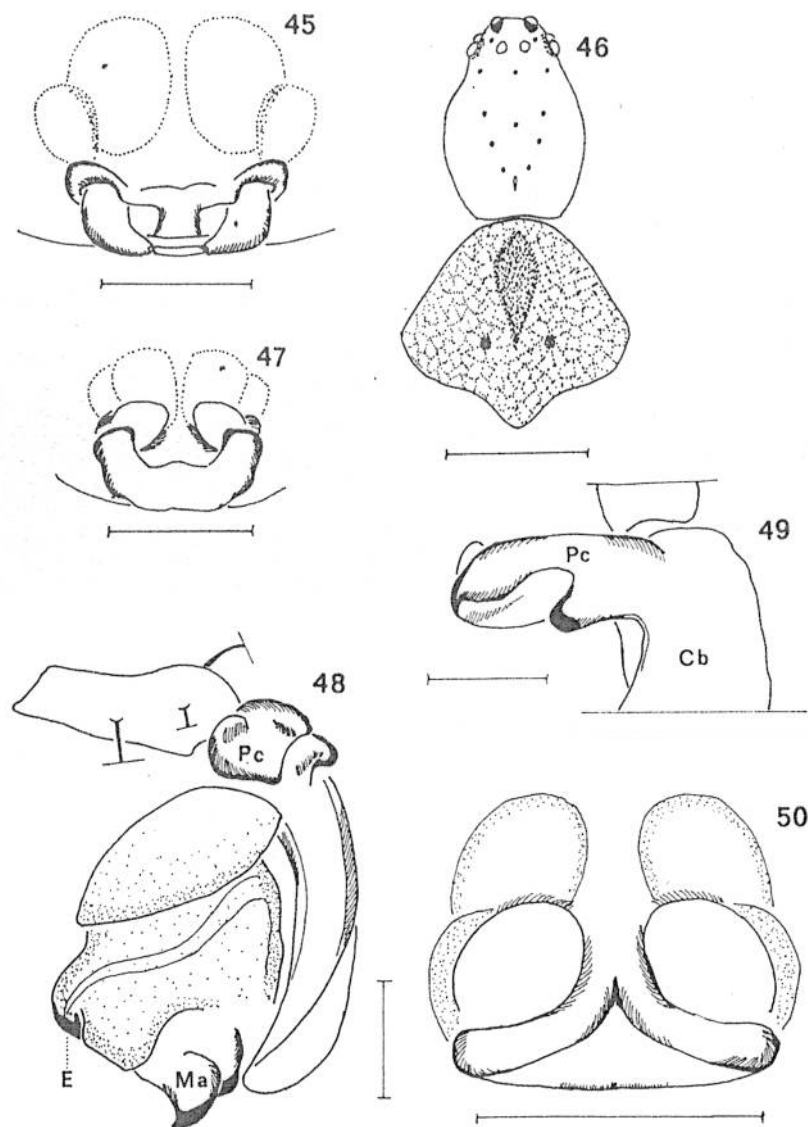


Fig. 45: *Australomimetes subspinosus* n. sp., female epigynum. — Figs. 46–47: *Australomimetes triangulosus* n. sp., female. 46: Cephalothorax and abdomen, dorsal view. 47: Epigynum. — Figs. 48–50: *Ero tasmaniensis* HICKMAN. 48–49: Male, right palpus. 48: Retrolateral. 49: Paracymbium, dorsal. 50: Female, epigynum.

Scale lines: figs. 17–20 and 46 = 1 mm, the others = 0.2 mm

Etymology: The species is named on account of its affinity to *A. spinosus*.

Female: Cephalothorax 1.8 mm long, 1.3 mm wide, yellow with a brown median band which includes the eye region. Beside this band there are some light brown spots. Sternum light yellow with indistinct grey spots near the margin. Chelicerae yellowish brown, with a small brown stripe near its base. Labium and gnathocoxae a little darker than the sternum.

Abdomen 1.7 mm long, 1.4 mm wide. Dorsum dark grey with only some white spots near

the lateral sides. Ventral side yellowish, near the spinnerets with some grey spots. Spinnerets light brown.

Legs light yellow with brown spots and rings. Trichobothrium on metatarsus I–III 0.8, metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	4.2	3.1	1.8	2.1
Pt	0.8	0.6	0.4	0.5
Ti	4.7	3.0	1.3	1.9
Mt	4.1	2.4	1.3	1.8
T	1.3	1.2	0.8	0.8

Legs and the whole body spinated as in *A. spinosus*, but some of the spines are smaller than in *spinosus*.

Female genitalia: Epigynum very complicated (fig. 45). At the sides there are two large swellings which surround the openings. There is a wide groove in the centre divided by a broad ledge. There are four receptacula semines, one small pair situated at the sides of the openings and a large pair situated centrally.

Records: Only the holotype is known.

Australomimetes triangulosus n. sp. (Figs. 46–47)

Holotype: 1 female from Seary's Scrub Cooloola, South-East Queensland, 3. – 8. 2. 1976, (QMB). **Paratypes:** 1 female, 1 juvenile male from the same locality.

Etymology: The species is named on account of its triangular abdomen.

Female: Cephalothorax 1.4 mm long, 1.1 mm wide, light yellow. Around the fovea some small dusky spots. Three rows of long bristles between the fovea and the eye region. Sternum as long as it is wide, white. Chelicerae yellowish with typical spination. Labium and gnathocoxae have the same colour as the sternum.

Abdomen 2.0 mm long, 2.5 mm wide, triangular with a rounded anterior tip. Dorsum yellow with some white spots and dusky dots around the cardiac region. Ventral side and spinnerets yellowish.

Legs light yellow with some indistinct brown rings. Trichobothrium on metatarsus I–III 0.9. Metatarsus IV without a trichobothrium.

Measurements:

	I	II	III	IV
Fe	3.4	2.5	1.5	1.8
Pt	0.4	0.4	0.2	0.3
Ti	3.1	2.4	1.2	1.6
Mt	2.9	2.1	1.0	1.0
T	1.3	1.0	0.7	0.6

Female genitalia: The Epigynum has a large U-shaped plate (fig. 47). Near the anterior tips of the "U" there are two large grooves in which the openings are situated. There are four receptacula semines which lie in two pairs side by side.

Records: Mt. Tamborine, South-East Queensland, 10. 7. 1974; Eungella National Park, in closed forest, 3. 2. 1975.

The male of this species is unknown.

Ero tasmaniensis HICKMAN, 1928 (Figs. 48–50)

This very interesting species is found in several places in Queensland and New South Wales as well as from Tasmania. It is described by HICKMAN in a very detailed manner, however, the figures of the genitalia do not show many details.

Male palpus: The copulatory organ of the male shows a large but simple paracymbium (figs. 48, 49) which also has a sclerotized lobe at its base. There is no lateral lobus

as seen in some *Ero* species. At the bulb the median apophysis is developed as a bisected, flat and curved sclerite. The embolus is of medium size and difficult to see on the unexpanded bulb (fig. 48).

Female genitalia: (The fig. 9 A in HICKMAN's paper shows the epigynum from behind.) The epigynum is characterized by two large grooves which contain the openings. These grooves are bordered at the back by a well developed median plate. At each side of this plate there is a sclerotized wall which borders the epigynum at the back. In the anterior part of the plate these walls fuse together and build a small septum (Fig. 50). There are two simple receptacula semines.

In both habits and genitalia *Ero tasmaniensis* is closely related to the other *Ero* species. It differs considerably in its natural history as far as it is known. "They were found resting on the under surface of stones ..." (HICKMAN). All the Australian records I have examined were taken by pitfall traps. The shape of the body and the legs seem that *Ero tasmaniensis* walks on the ground.

Records: Trevallyn, Launceston, Tasmania (HICKMAN, 1928); Queensland: Bunya Mountains, Cooyar Maidenwell Road, Lower Albert River, Lamington National Park, Gold Ck. Reservoir, Brookfield, Brisbane; New South Wales: Kioloa and Benandarah north of Bateman's Bay, Kerewony SF near Lorne, Mount Keira Fauna Reserve near Woolongong, Nadgee National Reserve.

Summary

Australian mimetids were observed to be closely related and to show distinct common characteristics in the development of the male copulatory organ: they are therefore considered to constitute a new genus in this paper. It was possible to identify characteristics which enable the mimetid genera *Arcys*, *Australomimetes* n. gen., *Ero*, *Gelanor*, *Mimetes* to be clearly distinguished one from each other. The present paper provides keys for determining these genera and the species of the new genus. There are described several new species of *Australomimetes* n. gen.: *A. annulipes* n. sp., *A. burnetti* n. sp., *A. childersiensis* n. sp., *A. daviesianus* n. sp., *A. hartleyensis* n. sp., *A. herteliani* n. sp., *A. kioloensis* n. sp., *A. pseudomaculosus* n. sp., *A. raveni* n. sp., *A. robustus* n. sp., *A. sydneyensis* n. sp., *A. hirsutus* n. sp., *A. miniatus* n. sp., *A. spinosus* n. sp., *A. subspinosus* n. sp., *A. triangulosus* n. sp. — *Ero tasmaniensis* HICKMAN is discussed because of its exceptional position within the genus *Ero* as well as within the Mimetidae.

Zusammenfassung

BEMERKUNGEN ZUR SPINNEN-FAMILIE MIMETIDAE MIT BESCHREIBUNG EINER NEUEN GATTUNG AUS AUSTRALIEN

Zahlreiche, untereinander sehr ähnliche Mimetidae aus Australien wurden untersucht. Aufgrund von Merkmalen besonders des männlichen Kopulationsapparates wurde die neue Gattung *Australomimetes* n. gen. aufgestellt. Beim Vergleich mit den Gattungen *Ero*, *Gelanor* und *Mimetes* fanden sich bisher kaum beachtete Merkmale, die eine sichere Unterscheidung der Gattungen ermöglichen. Es werden Bestimmungsschlüssel gegeben für die o. g. Gattungen und für alle bekannten Arten der Gattung *Australomimetes* n. gen. Als neue Arten der Gattung *Australomimetes* n. gen. werden beschrieben: *A. annulipes* n. sp., *A. burnetti* n. sp., *A. childersiensis* n. sp., *A. daviesianus* n. sp., *A. hartleyensis* n. sp., *A. herteliani* n. sp., *A. kioloensis* n. sp., *A. pseudomaculosus* n. sp., *A. raveni* n. sp., *A. robustus* n. sp., *A. sydneyensis* n. sp., *A. hirsutus* n. sp., *A. miniatus* n. sp., *A. spinosus* n. sp., *A. subspinosus* n. sp., *A. triangulosus* n. sp. — Die bisher wenig bekannte *Ero tasmaniensis* HICKMAN wird außerdem besprochen wegen ihrer isolierten Stellung innerhalb der Gattung *Ero* und der Mimetidae überhaupt.

Literature

- BALOGH, P., 1979: On the Geographical Distribution of the *Archemorus* Species (Araneae, Argyropidae). — Opusc. Zool. (Budapest) 16 (1-2), 67-76.
BRIGNOLI, P. M., 1972: Ragni di Ceylon I. Missione biospeologica Aellen-Strinati (1970) (Arachnida, Araneae). — Rev. suisse Zool. 79 (2), 907-929.

- , 1983: A Catalogue of the Araneae described between 1940 and 1981. Manchester Univ. Press, XI + 755 pp.
CUTLER, B., 1972: Notes on the Biology of *Mimetes puritanus* CHAMBERLIN. — Amer. Midl. Naturalist 87, 554-555.
GRASSHOFF, M., 1970: Die Tribus Mangorini I. Die Gattungen *Eustala*, *Larinia* s. str., *Larinopa* n. gen. — Senck. biol. 51 (3/4), 209-234.
HEIMER, S., 1981: Interne Arretierungsmechanismen an den Kopulationsorganen männlicher Spinnen. Ein Beitrag zur Phylogenie der Araneioidea (Arachnida, Araneae). — Ent. Abh. Mus. Tierk. Dresden 45, Nr. 3, 35-64.
—, 1983: Remarks on the Spider Genus *Arcys* WALCKENAER, 1837, with Description of New Species (Araneae, Mimetidae). — Ent. Abh. Mus. Tierk. Dresden 47, Nr. 9, 155-178.
HEIMER, S., J. HUNTER, T. OEY, H. W. LEVI, 1982: New sensory (?) organ on a spider tarsus. — Journ. Arachnol. 10, 278-279.
HENTZ, N. M., 1832: On North American Spiders. — Amer. Journ. Sci. Arts XXI, 99-109.
HICKMAN, V. V., 1928: Studies in Tasmanian Spiders III. — Pap. Proc. Roy. Soc. Tasman., 96-118.
KASTON, B. J., 1981: Spiders of Connecticut. — Connecticut Geol. Nat. History Survey Bull. 70 (rev. ed.), 1020 pp.
KOCH, C. L., 1837: Uebersicht des Arachnidensystems. (Nürnberg), Heft 1, 1-39.
LEVI, H. W., 1971: The *diadematus* group of the orb-weaver genus *Araneus* north of Mexico (Araneae, Araneidae). — Bull. Mus. Comp. Zool. 141, 131-178.
RAINBOW, W. I., 1904: Studies in Australian Araneidae III. — Rec. Austral. Mus. 5 (3), 326-336.
ROBINSON, M. H., 1980: The Ecology and Behavior of tropical Spiders. — C. R. 8th Congr. intern. Arachnol., Vienne, 13-32.

Anschrift des Verfassers:

S. Heimer, Staatliches Museum für Tierkunde Dresden,
DDR - 8010 Dresden, Augustusstraße 2